

A length equal to two diameters of the cutting tool is usually sufficient for a bearing surface in the bushing. The remainder of the length of the hole in the bushing may be counterbored or relieved. The end that should be relieved is, of course, that which is farthest from the work into which the tool is to be guided.

Screw bushings are generally avoided when accurate work is required. There must be a certain amount of clearance in the ordinary tapped hole, and a threaded bushing is likely to be out of true on that account. Sometimes, however, it happens that no other type of bushing can be used for the work in hand.

The headed or flanged bushing is preferred by many tool designers as a lining bushing, whenever it is possible to utilize it. If it is desired to have the head of the bushing flush with the surface of the jig, the jig is counterbored to receive the head.

As previously mentioned, slip bushings are employed when several operations are to be performed through the same lining bushing. For example, when it is desired to drill and ream a hole and to finish a boss or spot around the hole while the work is still in the jig, a lining bushing is selected that will guide a counterbore A inch larger than the boss to be finished. A slip bushing is then made to guide the drill, the body of which is a sliding fit in the lining bushing. Another slip bushing is made for the reamer which is also a sliding fit in the lining bushing. The slip bushing walls may have any thickness, providing they are not too thin. Should the conditions require bushings with too thin walls, the counterboring operation in the jig must be abandoned and some different method of procedure adopted.